

ABSTRACT

Active hydrogen in an active-hydrogen-containing compound is activated by using a polymer gel having a three-dimensional network structure holding a solvent inside thereof and active sites inside the three-dimensional network structure and surfaces thereof. The ratio of swell of the polymer gel is preferably set to not less than 2, and it is preferable for the polymer gel to have a basic functional group derived from at least one compound selected from the group consisting of tertiary amine compounds, quaternary ammonium salts, cyclic amine compounds and sulfides. The activation of active hydrogen in the active-hydrogen-containing compound is preferably carried out under the condition that the amount of basic active sites of the polymer gel per unit volume in the active system accompanying the activation of active hydrogen is set to not less than 0.43 mmol/cc.